Remarks

Claims 1 and 5-16 were pending in this application and have been rejected. By way of this amendment, claim 1 has been amended to more clearly claim the subject invention. Support for the claims amendments and new claims can be found in the originally filed specification, claims and Figures. *No new matter has been added.*

The foregoing amendments were made solely in an effort to expedite prosecution and allowance of the present application. The applicants reserve the right to pursue the claims as originally filed in this or a separate application(s).

Accordingly, upon the entry of the present amendment and response, claims 1 and 5-16 will remain pending.

Indefiniteness Rejection Under 35 USC § 112, First Paragraph

Claims 1 and 5-16 have been rejected under 35 USC § 112, first paragraph, as allegedly failing to comply with the written description requirement on the ground that "[t]he recitation of mechanical support or reception head including suction pump constitutes New Matter." (*See*, page 2 of the Office Action mailed March 4, 2008). In particular,

Applicants respectfully traverse this rejection. Applicants note that, contrary to the Office's understanding, none of the claims recite a reception head including the suction pump but instead recite that the suction pump is connected to the mechanical support. Applicants have amended claim 1 to include the suction pump limitation in a separate step (b), thereby making it abundantly clear from a plain reading of the claim that the suction pump is connected to the mechanical support to aspirate a liquid substance contained in the filter unit.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of this rejection.

Obviousness Rejection Under 35 USC § 103(a)

Claims 1 has been rejected as allegedly being obvious under 35 USC §103(a) over U.S. Patent Publication No. 20040000518 in the name of Haley, III (hereinafter referred to as "*Haley*") in view of U.S. Patent No. 6,171,480 in the name of Lee (hereinafter referred to as "*Lee*"). (*See*, page 3 of the Office Action mailed March 4, 2008).

Specifically, the Office has cited *Haley* for the proposition that it "discloses a device that effects drainage (paragraph 55 concerns drainage of excess overflow water to recirculation tank 32) and comprises a filter unit (trickling filter) that has a mechanical support 10 comprising reception head 12 for receiving a filter unit (paragraph 54), suction

pump 36 or 38 (paragraph 55) being connected to the mechanical means, weight sensor/load cell (paragraphs 66 and 78) on which the mechanical support is mounted and adaptable to deliver weight signals, a user interface, and a control unit adapted to operate flow of fluid through the filter (paragraphs 79 and 80) and suction pump in response to determined threshold weights (paragraphs 69 and 78-80)." *Id.*

The Office acknowledges that "the claims differ in requiring the filter unit to include a membrane." However, the Office then goes on to cite *Lee* for the proposition that it teaches "a trickling filter adjacent a membrane filter in a purifying device (column 7, line 55-column 8, line 64)." *Id.*

The Office subsequently concludes that "[i]t would have been obvious to one of ordinary skill in the art to have added such membrane filter to the Haley device, so as to remove microbiological contaminants and other contaminants of very fine diameter." (*See*, pages 3 and 4 of the Office Action mailed March 4, 2008).

Applicants respectfully traverse this rejection for the following reasons.

A proper *prima facie* obviousness rejection requires that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Additionally, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* M.P.E.P §2143. Also, see *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1443 (Fed. Cir. 1991) (the teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure).

In fact, Applicant notes that the Federal Circuit has repeatedly stated that "there is no basis for concluding that an invention would have been obvious solely because it is a combination of elements that were known in the art at the time of the invention. See, for example, *Smiths Industries Medical Sys., Inc v. Vital Signs Inc.*, 183 F.3d 1347, 1355, 51 U.S.P.Q.2d 1415, 1423 (Fed. Cir. 1999). The Federal Circuit also recognizes that "virtually all inventions are combinations of old elements . . . . If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue." See, for example, *In re Rouffet*, 149 F.3d 1350, 1356. 47 U.S.P.Q.2d 1453, 1459 (Fed. Cir. 1998).

Furthermore, in a recent case, *KSR International Co. v. Teleflex Inc. et al.* (127 S. Ct. 1727, 1731 (2007)), the Supreme Court acknowledged the importance of identifying "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does" in an obviousness determination.

As discussed in detail *infra*, Applicant notes that consistent with the legal principle enunciated by the Supreme Court in *KSR*, the Office has failed to provide a

reason which would have prompted one of ordinary skill in the relevant art to combine the teachings of *Haley* and *Lee* to arrive at the claimed invention. Furthermore, even if *arguendo*, the teachings of *Haley* and *Lee* were combined, one of ordinary skill in the art would not have been able to arrive at the claimed invention, which is vastly different in both structure as well as function from the devices discussed in *Haley* as well as *Lee*.

The claimed invention, as recited in amended claim 1, is directed, at least in part, to ***a drainage device for a filter unit*** for microbiological testing of liquids, where the drainage device comprises several elements including: (a) ***a mechanical support*** comprising a reception head for receiving a filter unit including a membrane; (b) ***a suction pump*** connected to the mechanical support to aspirate a liquid substance contained in the filter unit; (c) ***a weight sensor*** on which the mechanical support is mounted and which is adapted to deliver a signal representative of the weight exerted by the mechanical support on the weight sensor; (d) ***a user interface*** for entering data relating to the drainage of the filter unit and/or to the liquid substance; and (e) ***a control unit*** connected to the suction pump, the weight sensor and the user interface, the control unit being adapted to determine, from the data, at least a first weight corresponding to a first representative signal; and in that, when the weight sensor supplies a signal corresponding to the first signal, the control unit starts operation of the suction pump so as to aspirate the liquid substance contained in the filter unit.

The Office appears to be purporting that *Haley* discloses a device which includes all limitations of claim 1 except a filter membrane.

Applicants respectfully disagree. Applicants note that the device of *Haley* is vastly divergent in both structure as well as function from the claimed drainage device for a filter unit.

For example, in contrast to the claimed ***drainage device for a filter unit***, the device disclosed in *Haley* is directed to ***a wastewater treatment apparatus***. Specifically, the apparatus of *Haley* is designed to ***treat wastewater with microorganisms*** in order to adsorb organic compounds. In contrast, the device of the claimed invention is designed to ***remove microorganisms*** by filtering it through a membrane.

It is to be noted that not only is the device of *Haley* designed to perform a completely different function than the claimed device, but the device is also structurally divergent from the claimed device and lacks several structural features set forth in the instant claims.

It appears that the Office has erroneously considered the treatment cells in the wastewater treatment apparatus in *Haley* as allegedly being analogous to a mechanical support of the claimed invention, the closure hood in *Haley* as allegedly being analogous to a reception head of the claimed invention, the pumps in *Haley* as allegedly being analogous to a suction pump of the claimed invention and the sensing device in *Haley* as allegedly being analogous to a weight sensor in the claimed invention. Further, the Office cites to paragraphs 79 and 80 as allegedly discussing a control unit. (*See*, page 3 of the Office Action mailed March 4, 2008).

Applicants respectfully submit that, contrary to the Office's contention, the apparatus of *Haley* does not even include a mechanical support, let alone ***a mechanical support*** comprising a reception head for receiving a filter unit including a membrane. Instead, the apparatus includes several ***trickle towers*** which are connected by a manifold to enable wastewater to be sequentially moved through the trickle towers. *See*, Abstract. In the apparatus of *Haley*, the wastewater is recirculated many times through each trickle tower.

Additionally, the apparatus of *Haley* also does not include a suction pump connected to the mechanical support ***to aspirate a liquid substance contained in the filter unit***. Instead, the pumps in the apparatus of *Haley* ***facilitate recirculation of wastewater through the cells by drawing partially treated wastewater from the base tray of the trickle tower***. *See*, paragraph [0055].

Further, unlike the weight sensors of the claimed device which are adapted to ***measure the weight of the mechanical support and any remaining liquid sample***, the sensing device in the apparatus of *Haley* ***measure the accumulation of biogrowth***. *See*, paragraphs [0016] and [0066].

Accordingly, *Haley* is directed to an apparatus which is both structurally as well as functionally divergent from the claimed device.

Lee fails to cure the deficiencies of *Haley*. It appears that the Office has relied on *Lee* as providing the motivation to modify the apparatus of *Haley* to include a membrane filter described in *Lee*, thereby to arrive at the claimed device.

As an initial matter, Applicants note that *Lee* is even farther removed from the claimed invention. Specifically, *Lee* is directed to ***a computer automated upflow bead filter system for culture of aquatic systems***. *See*, column 1, lines 10-11. *Lee* discusses having a serial arrangement of filters through which effluent water is passed. The combination and arrangement of the filters is discussed as being dependent on the aquatic species being cultured. The filters which may be used, including a trickling filter, are discussed as performing different functions, *e.g.*, removing particulate matter, protein skimmers, trapping molecules based on size, as biological-media beds, and for sterilization. *See*, column 3, lines 34-55 and column 5, lines 34-46.

First, Applicants submit that while based on *Lee*, one of ordinary skill in the art might be motivated to use one or more types or arrangement of filters described therein for maintaining quality of water in an aquatic system for culturing a particular species, as such one or ordinary skill in the art would not have been motivated to use one or more types or arrangements of filters in a wastewater treatment apparatus, as described in *Haley*. Specifically, even if *Lee* discussed using a trickling filter in combination with a filter membrane, as alleged by the Office, one of ordinary skill in the art would not have had any motivation to use that combination in a wastewater treatment apparatus, such as that described in *Haley*. For example, the apparatus of *Haley* requires treating the

wastewater with microorganisms, accordingly, one of ordinary skill in the art would not have been motivated to absorb the microorganisms which are desirable in the apparatus of *Haley*.

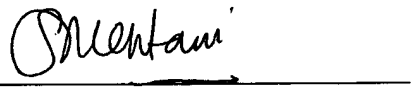
Second, even if one of ordinary skill in the art would have used a filter membrane of *Lee* in the apparatus of *Haley*, one or ordinary skill in the art would not have been able to arrive at the claimed invention. Specifically, at least for the reasons mentioned above, the wastewater treatment apparatus of *Haley* is vastly divergent in structure as well as function from the claimed device. Accordingly, even if one of ordinary skill in the art were to use a filter membrane for capturing microorganisms in the apparatus of *Haley*, they would not have arrived at the particular structure of the claimed invention.

In view of the foregoing amendment and arguments, Applicants respectfully request reconsideration and withdrawal of this rejection.

Conclusion

In view of the foregoing amendments and arguments, allowance of the instant application with all pending claims is respectfully solicited. If a telephonic conversation with Applicants' attorney would help expedite the prosecution of the above-identified application, the Examiner is urged to call the undersigned at the number below. Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 13-3577.

Respectfully submitted



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Stacey Gross